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EXAMINER

MILIA, MARK R

ART UNIT PAPER NUMBER

2622

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,008

Applicant(s)

KASHIWAGI, MASAKI

Examiner

Mark R. Milia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-17 and 19-23 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it exceeds one paragraph.

Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: Page 8, line 16, "codument" should read, "document". Page 14, line 25, "503" should read, "5-3" and line 26, "4-3" should read "402". Page 18, line 15, "606" should read "6-6" and line 22 "607" should read "6-7". Page 26, line 4, "502" should read "5-2", line 7 "508" should read "5-8", line 8 "5-3-1" should read "5-31", line 21, first citation of "5-16" should read "5-15", and line 27 "508" should read "5-8". Page 27, line 13, "5-35" should read "5-34".
Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 15 and 20 are directed to a computer program. Such a claim is non-statutory because the terminology "computer program" alone has no set definition. A statutory product with descriptive material must include a positive recitation of the computer readable medium, see MPEP 2106. Examiner suggests amending the claims to read "A computer program embodied in a computer readable medium for performing the steps of..." or "A computer readable medium storing a program for performing the steps of..." or any other similar wording which best clarifies the claim and includes a positive recitation of the computer readable medium. Examiner would also like to point out, by another example, that the language used in claim 21 can be used to amend claim 20 and thus the combination should ultimately yield only one claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5987226 to Ishikawa et al.

Regarding claim 22, Ishikawa discloses an image forming apparatus capable of communicating with an information processing apparatus, comprising: reception means for receiving process information from said information processing apparatus (see column 6 lines 6-24), job generation means for generating a job based on the process information received by said reception means (see column 6 lines 20-35), generation means for generating process units of a hierarchic structure based on the job generated by said job generation means (see column 6 lines 33-44, column 7 line 18-column 8 line 19, and column 8 lines 39-60, reference teaches the division of a print job, the parts of which are sent to processors to be processed and then collected at the printer, thus a hierarchic structure is described and therefore the claimed element is anticipated by the reference), determination means for determining a device to be used, among plural device provided in said image forming apparatus, based on the process information received by said reception means (see column 6 lines 35-56, reference teaches after the division of a print job the smaller parts are transferred to different processors based upon resource information therefore the claimed element is anticipated by the reference), and assignment means for assigning the process unit generated by said generation means to the device determined by said determination means (see column 6 line 59-column 7 line 3 and column 8 lines 47-60).

Regarding claim 23, Ishikawa discloses an image forming apparatus capable of communicating with an information processing apparatus, comprising: reception means for receiving process information from said information processing apparatus (see column 6 lines 6-24), job generation means for generating a job based on the process information received by said reception means (see column 6 lines 20-35), generation means for generating an instance of a hierarchic structure based on the job generated by said job generation means (see column 6 lines 33-44, column 7 line 18-column 8 line 19, and column 8 lines 39-60), determination means for determining a device to be used, among plural device provided in said image forming apparatus, based on the process information received by said reception means (see column 6 lines 35-56), and assignment means for assigning the instance generated by said generation means to the device determined by said determination means (see column 6 line 59-column 7 line 3 and column 8 lines 47-60).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa in view of U.S. Patent No. 6026416 to Kanerva et al.

Regarding claims 16, 19, 20, and 21, Ishikawa discloses an image forming apparatus capable of communicating with an information processing apparatus, comprising: reception means for receiving process information from said information processing apparatus (see column 6 lines 6-24), job generation means for generating a job based on the process information received by said reception means (see column 6 lines 20-35), determination means for determining a device to be used, among plural device provided in said image forming apparatus, based on the process information received by said reception means (see column 6 lines 45-56), and assignment means for assigning the document generated by said document generation means to the device determined by said determination means (see column 6 line 59-column 7 line 3 and column 8 lines 47-60).

Ishikawa does not disclose expressly binder generation means for generating plural binders based the job generated by said job generation means and document generation means for generating plural documents based on the binder generated by said binder generation means.

Kanerva discloses binder generation means for generating plural binders based the job generated by said job generation means (see Figs. 4, 6, and 10, column 6 lines 11-16, column 11 lines 11-26, column 17 lines 11-26, column 18 lines 26-38, and column 19 lines 3-6), document generation means for generating plural documents based on the binder generated by said binder generation means (see column 10 lines 46-51, column 11 lines 11-26, and column 18 lines 39-58), determination means for determining a device to be used based on the process information received by said

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reception means (see column 25 line 47-column 26 line 7, column 26 lines 16-24 and 32-36, and column 26 line 48-column 27 line 1), and assignment means for assigning the document generated by said document generation means to the device determined by said determination means (see column 25 line 47-column 26 line 7, column 26 lines 16-24 and 32-36, and column 26 line 48-column 27 line 1).

Regarding claim 17, Ishikawa does not disclose expressly page generation means for generating plural pages based on the document generated by said document generation means, wherein said assignment means assigns the page generated by said page generation means to the device determined by said determination means.

Kanerva discloses page generation means for generating plural pages based on the document generated by said document generation means (see column 26 lines 32-36 and 48-53), wherein said assignment means assigns the page generated by said page generation means to the device determined by said determination means (see column 25 lines 47-52 and column 26 line 54-column 7 line 1).

Ishikawa & Kanerva are combinable because they are from the same field of endeavor, dividing print jobs into smaller parts to increase the processing rate.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the document binder concept of Kanerva with the system of Ishikawa.

The suggestion/motivation for doing so would have been to allow printing of documents with different file formats that are "bound" together to be divided into smaller parts and print out without being interrupted by another print job and to be printed in the

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same order as the document appeared in the file (see column 3 lines 10-27 and column 4 lines 54-65).

Therefore, it would have been obvious to combine Kanerva with Ishikawa to obtain the invention as specified in claims 16-17 and 19-21.

Allowable Subject Matter

6. Claims 1-14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Examiner believes it would not have been obvious to one of ordinary skill in the art to combine all the claim elements in such a way as to repeatedly divide and manage a print/scan/copy job into smaller and smaller units, all the way down to a band unit, which is smaller than a page, and process the units on a individual basis as part of an image forming apparatus.

In addition, claim 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101, as set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show state of the art refer to U.S. Patent number 5859711 (Barry et al.).

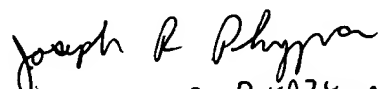
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (703) 305-1900. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached at (703) 305-4712. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRM

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Examiner
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